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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,454	09/22/2003	Ta-Chung Wu	17620R-002600US	2352
20350	7590	01/04/2005	EXAMINER	
TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834			NGUYEN, KHIEM D	
			ART UNIT	PAPER NUMBER
			2823	

DATE MAILED: 01/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Advisory Action</b>	<b>Application No.</b> 10/668,454	<b>Applicant(s)</b> TA-CHUNG WU	
	<b>Examiner</b> Khiem D Nguyen	<b>Art Unit</b> 2823	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 02 December 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY** [check either a) or b)]

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
  - (b) ☐ they raise the issue of new matter (see Note below);
  - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
  - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: none.

Claim(s) objected to: none.

Claim(s) rejected: 1-25.

Claim(s) withdrawn from consideration: none.

8. ☐ The drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.

9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_

10. ☐ Other: \_\_\_\_\_



**W. DAVID COLEMAN**  
**PRIMARY EXAMINER**

Continuation of 5. does NOT place the application in condition for allowance because: In response to Applicants' arguments that AAPA does not teach or suggest performing a plasma-enhanced chemical vapor deposition (PECVD) process with tetraethylorthosilicate (TEOS) as a gas source to deposit an oxide layer on the bottom and sidewall of the trench structure and the semiconductor substrate, the oxide layer only partially filling the trench, Examiner respectfully disagrees. Applicants are directed to the specification, page 1, paragraph [0003] and FIGS. 1a-c where AAPA disclose performing a High Density Plasma Chemical Vapor Deposition (HDP-CVD) process to deposit an oxide layer 14 on the bottom bt and sidewall sw of the trench structure 13, the oxide layer only partially filling the trench. Note that, HDP-CVD is Plasma Enhanced Chemical Vapor Deposition (PECVD) process. Additionally, on page 2 of the specification, paragraph [0005] and FIGS. 2a-d, AAPA disclose performing a (PECVD) process to deposit an oxide layer 24 on the bottom and sidewall of the trench structure 23 and the semiconductor substrate 2, the oxide layer only partially filling the trench. Regarding on the limitation using PECVD with tetraethylorthosilicate (TEOS) as a gas source to deposit an oxide layer, Manley (U.S. Patent 5,723,358) is enclosed herewith to provide evidence that the process of PECVD with TEOS as a gas source to deposit an oxide layer is well-known to one of ordinary skill in the art at the time of the invention was made (col. 6, lines 40-65 and col. 7, lines 12-26), see attachment. Thus, independent claims 1, 11 and 21 are not patentable over the AAPA. For these reasons, Examiner holds the rejection proper.